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Global Combat Support System–Joint Program Overview

AUGUST 2015

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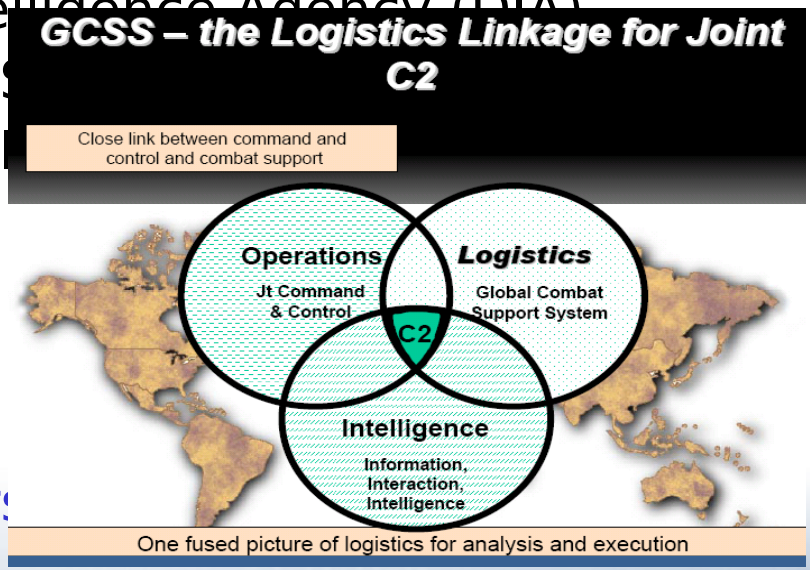
Program Description

- Functional Sponsor: Director for Logistics Joint Staff J-4 (DJ4)
- Acquisition Category: 1AC
- Milestone Decision Authority: DISA Component Acquisition Executive
- Operational Test Authority: Joint Interoperability Test Command (JITC)
- Certifying Agency: Defense Intelligence Agency (DIA)
- Designated Approval Authority:
- Mission Assurance Level: MAC I
- Requirements Authority: JS J4
- Current Operating System: v8.0
- Customers:
  - Combatant Commands
  - Joint Task Force Commanders
  - Other Agencies
- Operational Concept:
  - Strategic Server Suite


GCSS – the Logistics Linkage for Joint C2
Close link between command and control and combat support
Operations
Jt Command & Control
Logistics
Global Combat Support System
C2
Intelligence
Information, Interaction, Intelligence
One fused picture of logistics for analysis and execution

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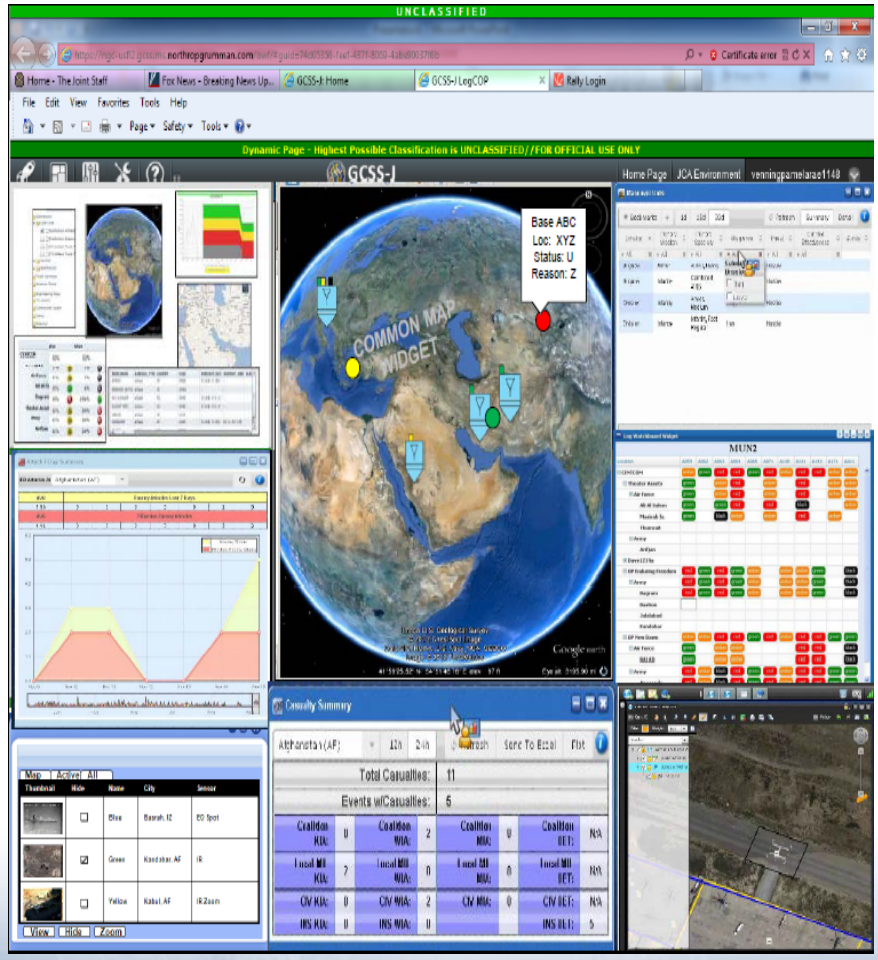
Functional Evolution

BACKGROUND

- Early development focused on simple queries
- Unique user preferences and views "hard coded"
- Integrated map-based views in 2004/05
- Data Sources continually evolving & changing
- Requirements continually refined
- Enabled user-tailored views in 2013



NOW

- Real-time, web-based, providing accurate actionable visibility within a LOGCOP
- Map-based views via Google Earth
- User can set up watchboards and tailor views to support their work
- CCMDs can develop unique views and widgets w/in the GCSS-J program & architecture

UNCLASSIFIED

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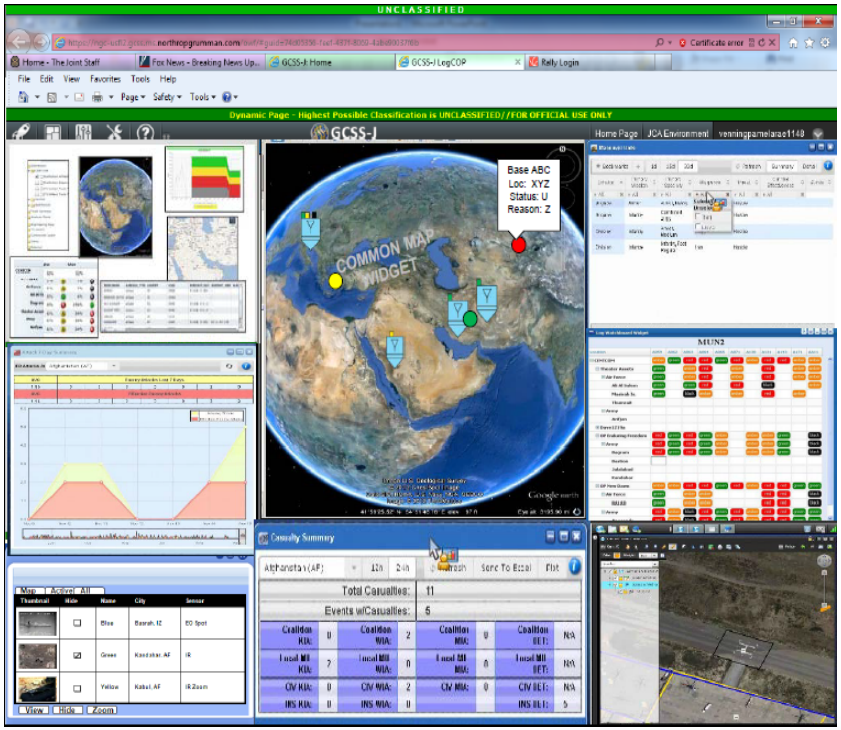
Global Combat Support System - Joint

Providing Joint Logisticians with Visibility & Decision Support tools to Effectively
Plan & Execute Logistics Support for Current & Future

Primary information technology application to provide a single source of visibility & decision support for the Joint logistician

Real-time, web-based, providing accurate, actionable visibility within a Logistics Common Operational Picture (LogCOP)

Designed for customers on the CCMD J-4 staff, a Joint Task Force staff, or any other joint logistics organization (i.e., a Joint-enabled Theater



ACAT 1AC Program

Functional Sponsor: JS J4

Materiel Developer: DISA

Milestone Decision Authority: Delegated to DISA

Operational Test Authority: Joint Interoperability Test Command (JITC)

Certifying Agency: DIA

Designated Approval Authority: STRATCOM

Ability to link operators, intelligence, & logisticians across Joint Forces, Services, and support agencies to enable net-centric, collaborative planning & execution

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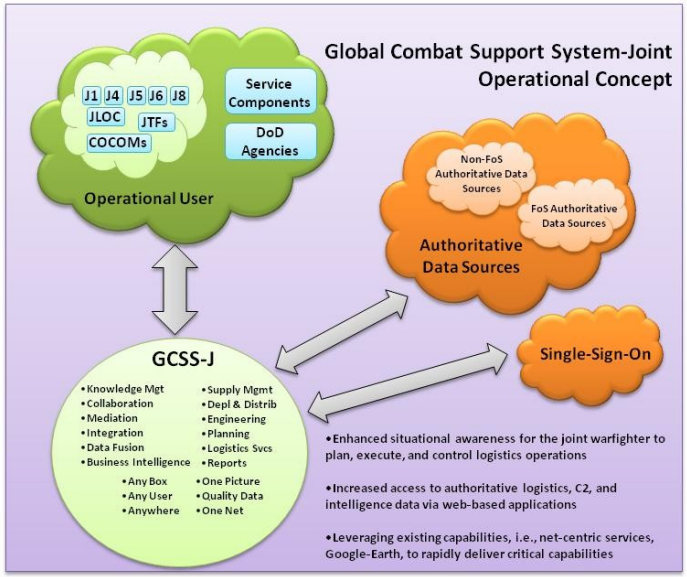
Operational View

Joint Staff Focused Logistics Vision:

Dynamic Logistics -> Nothing Constrained -> Everything Possible



- ☑ **The right personnel, equipment, supplies, and support**
- ☑ **In the right place**
- ☑ **At the right time**
- ☑ **In the right quantities**
- ☑ **Across the full spectrum of military operations**

- Delivers accurate, timely, and relevant information to the joint logistics Warfighter
  - Enables asset visibility from disparate authoritative data sources to provide the Warfighter an integrated picture of the battlespace
- Operates in a web-centric / net-centric environment to provide information to authorized users regardless of geographic location
- Combines logistics information with operations and intelligence to provide the joint Warfighter the ability to plan, execute, and control logistics operations.

GCSS-J Provides Enhanced Decision Support Tools and Situational Awareness to the Warfighter

Functional View

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Increment 8.0
as of Mar 2015

GCSS-J User

Google Earth

GVS (NGA)
Map Layers

Gold = SIPR only
Green = NIPR only

SSO for DDP DDSR

Web Service Consumer

Security Gateway (DataPower)
Security: DOD PKI and Form-based Authentication

Incoming Web Services

CAS
* DRRS-S
HSIP
IGC (DISA ESB)
ITV Truck Tracks
LIW
MEIS
MIDB
ONI
PalX3 (Palanterra)
TCMS
WebREPOL

GCSS-J Home Page

Announcements, Datasource Availability, Links, Memberships, Data Import

Single Sign-on for DLA

Joint Capability Area - (JCA) Environment Folders

1.4 Health Readiness – Discover medical supplies and equipment
4.1 Deployment & Distribution – Monitor force deployments and manage distribution efforts
4.2 Supply – View and manage all classes of supply – log analysis
4.3 Maintain – Discover maintenance and repair assets
4.4 Logistics Services – Locate supplies and equipment
4.5 Operations Contract Support – View supplier agreements and contracts
4.6 Engineering – Find construction and building resources
4.7 Installations Support – Locate infrastructure and installations
5.3 Planning – Tools to facilitate planning activities

LogCOP & Dashboards (running on OWF)

- LogCOP
- User-defined Dashboards
- Widgets
- Widget Marketplace

Data Services

JBoss Data Virtualization (JDV)

Oracle
Special – AAFIF, ABFC, GeoExPT, NGA-WPI, IRRIS, FAD/RPAD

File Uploads

ACSA
EEBP
IMP
IPC
OIS
PC&S

JDBC Connections

AAFIF (NGA)
CFDB
DEERS
GDSS
* GSORTS
IGC-AV (IDE/AV)
IGC (IDE/GTN)
JOPES
NLAC
RF-ITV

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Customer Value

Logistics operator wants to track the serviceable inventory of 12 items identified by National Stock Number, determine the availability of substitute items, and map the location of supply points containing those items.

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Customer Value

Logistics operator wants to track the serviceable inventory of 12 items identified by National Stock Number, determine the availability of substitute items, and map the location of supply points containing those items.

Using GCSS-J	Without GCSS-J
One query returns the 12 NSN items	Must query **two** different systems (FEDLOG and IGC-AV); each returning 12 NSNs
Provides a roll up of each item, and a detailed inventory by supply point	Data not transferrable between systems; manual input and aggregation required
Automatically provides inventory of primary plus interchangeable and substitute NSNs	Must obtain substitute NSNs from FEDLOG and manually enter in IGC-AV sequentially
Automatically includes serviceable and unserviceable quantities displayed separately	Must export to spreadsheet from IGC-AV and group or filter
Automatically display Supply points on the 3D Map Widget	No mapping capability…
Time Required: **5 minutes or less**	Time Required: **1 – 2 hours**

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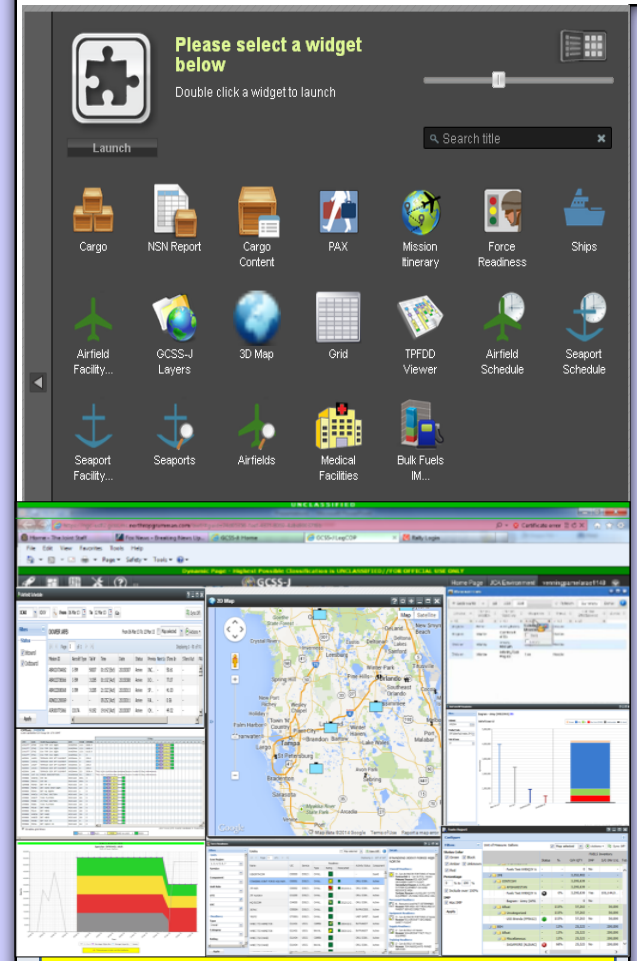
Version 8.0.1
Version 8.1.0

Supply

- NSN
- Fuels / IMP Visualization
- Munitions (+ Complete Rounds)
- War Reserves
  - APS
  - Munitions Prepo
- Bulk Fuels Contracts (All)
- Requisition / Document Number –
  - Summary
  - Details

Distribution/Deployment

- Airfields & Seaports Facilities
- Airfield & Seaport Schedules
- Itinerary –
  - Air Mission
  - Cargo (with Shipment Status)
- Cargo (Air and Sea)
- Cargo Contents
- Passenger
- Cargo Movement (Retrograde from Afghanistan only)
- Ships (Navy / MSC / Coast Guard)
- Theater Transportation Planner Widget



Version 8.1.1 Virtualizes GCSS-J to Enable milCLOUD Migration

Base & Installation Support

- Govt. Facilities / Military Installations
- Energy Facilities (POL/Nuclear)
- Storage Facilities (Warehouses / Cold Storage)
- Medical Facilities (Hospitals, Dental, Pharmacies, Clinics)
- Land Infrastructure (Railroads / Tunnels)
- Water Facilities (Storage,
- Emergency Services (EMS, FEMA, Fire, Law Enforcement, EOCs)

Health Readiness

- Medical Facilities (Hospitals, Dental, Pharmacies, Clinics)

Other

- 2D &3D Map
- FEMA Map Layers
- KMZ Files (Map Layers)
- ACSA Status Map Layers

Planning

- TPFDD Viewer
- Force Readiness
- Unit Details

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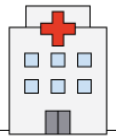
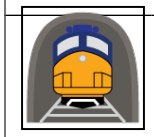
v8.0.1 Widgets

Widget / Item	Description	Source
ACSA Map Layer	Displays the current state of all Acquisitions & Cross Servicing Agreements (ACSA) US has with countries. Includes color display on map with statuses of Indefinite, Expiring, Eligible, and Not Eligible Countries.	ACSA Intellipedia
 **Medical Facilities**	Displays Medical Facilities for US(DoD / Civilian) and Non-US countries including Hospitals, clinics, Blood banks, Pharmacies, and Medical/Dental clinics. Synchronized with the map.	MIDB (SIPR only), HSIP **RPAD**
Energy	Displays Nuclear, Oil and Petroleum Facilities for US(Civilian) and Non-US countries including Refineries, Storage/Tank Farms, Gas Stations, and Nuclear Fuel Plants. Synchronized with the map.	MIDB (SIPR only) HSIP
Storage Facilities	Displays World –Wide Military and Non-Military Storage Facilities for US (DoD/Civilian) and Non-US countries including Cold Storage and Warehouses. Synchronized with the map.	MIDB (SIPR Only) HSIP **RPAD**
Govt. Facilities & Military Installations	Displays Government and Military Installations for US (DoD) and Non-US countries including Non-US countries Government Bodies, Defense Ministries, and Bases. Synchronized with the map.	MIDB (SIPR Only) **RPAD**
 **Land Infrastructure**	Displays Railroads and Tunnels for US (DoD/Civilian) and Non-US countries including Highway and Railroad Tunnels, Railroad Yards, and Nodes, Change of Gage, and Change of Mode. Synchronized with the map.	MIDB (SIPR Only) HSIP **RPAD**

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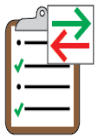
v8.0.1 Highlights – New Widgets

Item		Description	Source
Emergency Services Widget	Displays Emergency Service information for an area of interest. Displays Fire Stations and Law Enforcement for US (DoD/Civilian) and Non- US Countries. Displays Emergency Operations Centers and Emergency Medical Services for CONUS.		HSIP/ MIDB/ RPAD
Itinerary Widget	**Mission Itinerary**	Displays an itinerary for Aircraft Missions. Input is Mission ID. Added Status indicating Early, On-Time or Late. Mappable and synchronized with the Airfield Schedule, Cargo and PAX widgets.	IGC
	Cargo Itinerary	Displays Cargo Shipment Status and Itinerary for any of the following inputs: TCN, Pallet ID, Container Number, and RF Tag. Sync's with Cargo, Cargo Contents, and Mission Itinerary. Hyper-links for TCNs.	
 **Requisition/ Document Widget**	**Requisition/ Document Summary Report**	Displays Requisition or Document Numbers for a DODAAC, or NSN/LSN/PN by last status date. Filters include COCOMs and Priority Codes. Requisition and Document Numbers individually are synchronized with the Details portion of widget.	IGC
	Requisition/ Document Details Report	Displays all transactions in status date order for a single Requisition or Document Number. Displays History, Last Status, and Shipment Status. Filters include Priority Codes and Suffix. TCNs shown on DICs of AS_ are hyper-linked to Cargo and Cargo Contents widgets.	

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V8.0.1 Highlights – Enhancements

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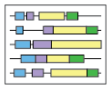
Item	Description	Source
 **TPFDD Widget**	Displays a graphic visualization of a TPFDD for a specified O-Plan. Added GEOLOC filter enhances the users ability to address constraints and identify feasible options for the movement of forces, equipment and supplies.	JOPES
War Reserves Widget	Displays all land-based and afloat Prepositioned Munitions supplies using the War Reserves Widget. Inputs and filters include DODIC, Location, and NALC.	IGC (AV-LIW), NLAC
User Interface Refactor	Displays applicable data source and a consistent design layout within all widgets. Allows the user to access sync, actions, and map controls upon launching the widget.	

V8.0 Highlights – New Widgets

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Widget / Item	Description	Data Source
Water Facilities	Displays Water Sources and Storage for US (DoD / Civilian) and Non-US countries including Wells, Reservoirs, Potable and Non-Potable Storage facilities. Synchronized with the map.	MIDB (SIPR only) HSIP FAD
Bulk Fuels Contracts	Displays all Defense Logistics Agency (DLA) Energy Fuels Contracts for Into-Plane, Post, Camp, and Station (PC&S), and Bunkers. Data includes contract number, vendor, fuel type, quantity in contract, and mode. Into-Plane Fuels Contracts are mappable.	IGC – AV
Bulk Fuels Delivery	Displays current or planned Bulk Fuels Deliveries by Discharge Locations. Organized by Regions from DLA Energy. Data includes arrival & discharge dates, quantities (estimated & actual), vessel name, with filters including date range. Initial widget not mappable.	IGC - AV
ACSA Map Layer	Displays the current state of all Acquisitions & Cross Servicing Agreements (ACSA) US has with countries. Includes color display on map with statuses of Indefinite, Expiring, Eligible, and Not Eligible Countries.	ACSA Intellipedia
Unit Details	Displays Unit Information including General data, Location data, Readiness, Equipment, Personnel, and OPLANS (JOPES users only) .	GSORTS (DRRS when Fielded) JOPES

V8.0 Highlights – Enhancements

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Item	Description	Source
Airfield Facility Details	Displays General Airfield info, Runways, Aprons, Hardstands, Helipads, Taxiways, and Suitability for a given ICAO, GEOLOC or MILAIR code. Synchronized with the map and Airfield Schedule.	NGA-AAFIF GDSS
Bulk Fuel IMP	Graphically displays the Inventory Management Plan for a given DODAAC and fuel Product Code, selectable from a picklist. The current inventory is superimposed on the graphic.	IMP Spread-sheet FES, REPOL
Mission Itinerary	Displays an itinerary for support aircraft from GDSS. Input is Mission ID (specified manually or from synchronization with the Airfield Schedule widget). Mappable and synchronized with the Cargo and PAX widgets.	GDSS
War Reserves	Allows users to create, view, and save Army Pre-positioned Stock (APS) On-Hand quantities. Inputs and filters include: APS, Location, Storage RIC, Project Code, UIC, Nomenclature, NSN, LIN, FSG/FSC, and Supply Class. Report Visualization Options: View by FSC, UIC, or Project Code. Mapping results is by Storage RIC.	IGC (AV-LIW)
Seaport Facility Details	An enhancement to the Seaport Berths widget to add MILSEA as an input and to provide additional general seaport info and additional port physical characteristics.	NGA-WPI SDDC
Munitions Report	Allows users to create, view, and save munitions supply data for DoD Identification Code (DODIC) and Navy Ammunition Logistics Code (NALC) for DoD Ammunition Supply Points and Depots, and map results.	NLAC

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v7.4.2 Capabilities - Widgets

Item	Description	Data Source(s)
Munitions Report Widget	Allows users to create, view, and save munitions supply data for DoD Identification Code (DODIC) and Navy Ammunition Logistics Code (NALC) for DoD Ammunition Supply Points and Depots, and map results.	**NLAC**
Fuels Report Widget	Allows users to create, view, and save fuels supply data for Fuels Product Codes for DoD Fuel Points and map results. View includes limited Inventory Management Plan (IMP) data.	**EEBP, WebREPOL, IMP (limited)**
Energy Facilities Widget	Allows users to locate and view US and Non-US Nuclear, Oil and Petroleum Facilities. Includes Refineries, Storage/Tank Farms, Gas Stations, and Nuclear Fuel Plants. All Non-US Facilities are SIPR only with URL for additional detailed information.	**HSIP, MIDB (SIPR only)**
Storage Facilities Widget	Allows users to locate and view US (DoD / Civilian) and Non-US Warehouses and Cold Storage Facilities. All Non-US Facilities are SIPR only with URL for additional detailed information.	**FAD, HSIP, MIDB (SIPR only)**

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v7.4.2 Capabilities - Widgets

Item	Description	Data Source(s)
Government / Military Installations	Allows users to located and view US and Non-US Government and Military Installations and Facilities. All Non-US Installations and Facilities are SIPR only with URL for additional detailed information.	**FAD, HSIP, MIDB (SIPR only)**
War Reserves / PREPO Widget (Phase 1: APS)	Allows users to create, view, and save Army Pre-positioned Stock (APS) On-Hand quantities. Inputs and filters include: APS, Location, Storage RIC, Project Code, UIC, Nomenclature, NSN, LIN, FSG/FSC, and Supply Class. Report Visualization Options: View by FSC, UIC, or Project Code. Mapping results is by Storage RIC.	**IGC-AV**
Land Infrastructure Widget	Allows users to locate and view US and Non-US railroads, and tunnels. All Non-US Land Infrastructures are SIPR with URL for additional detailed information.	**FAD, HSIP, MIDB (SIPR only)**
* **Usage Widget**	This widget is Internal to the GCSS-J PMO. Provides a tool for gathering various metrics on GCSS-J widget usage which includes Total number of users who logged into the system, total number of individual users, name of user, widgets accessed, and time accessed.	**N/A**

* *Available to users with System Administrator privileges.*

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v7.4.2 Capabilities - Widgets

Item	Description	Data Source(s)
* **Key Performance Parameter Widget**	This widget is Internal to the GCSS-J PMO. This is the first phase of development to capture the responsiveness of the widgets. A small subset of the widgets will be included in this effort. The remaining widget KPP development will be completed in a future release.	**N/A**
2D Map	Users can choose to map data on a 2D map, view all map feature icons, and all map pop-up contents. 2D map allows for icon labels on/off and allows for clustering of icons to de-clutter the view.	**GVS (NGA)**
Cargo Movement Report Widget	Allows users to view retrograde and redeployment distribution data from U.S. TRANSCOM IGC and Army LIW systems. Currently CENTCOM (Afghanistan only).	**IGC, LIW**
Ships with Munitions, Fuels, or NSN Widgets	The combination of the Ships Widget and any combination of Munitions, Fuels, or NSN Widget will provide the appropriate supply icon above the ship in which the supply On-Hand quantities on-board the ship. Ships include Navy, Military Sealift Command (MSC), and Coast Guard.	**ONI, NLAC, EEPB, IGC-AV**

* *Available to users with System Administrator privileges.*

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Why use GCSS-J

- **A Logistics "One Stop Shop"** — Provides **access** to several disparate authoritative data sources and applications via **single sign-on** to the Web portal…***no "swivel-seat management!"***
- **Accessible** — "Set up" requires only a browser, Google Earth Plug-in, and PKI Hard Token for SIPRNet/CAC for NIPRNet.
- **Enhanced Situational Awareness** — GCSS-J provides enhanced situational awareness of the resources & capabilities available in the operational area of interest. Visualizations, in the form of map layers, watchboards, and a user-defined **Logistics Common Operational Picture (LogCOP)** give users & organizations the ability to customize how information is viewed, meeting both individual action officer needs and the organization's decision-making process requirements in support of the operational mission.
- **Technology** – developed using commercial trends (widgets/Apps)
- **Mission Needs Statement Based**
  - Stove-piped Legacy Information Systems
  - Lack of Fused Visibility / Limited Access
  - Inability to Present a Common Picture
  - Limited Joint Decision Support Tools
- **CCMD J4 Requirements Based**
  - CCMD 129 Requirements – 2000 / 01 / 03 / 05
  - CCMD, Joint Staff and OSD Originated

ust Overcome "Swivel Seat Management"

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Development Processes

Traditional Development Process

- **Release comprised of 12 to18-month development cycles**
  - **18-24 months to deploy capability**
- **No chance for requirements clarification**
  - **Limited user engagement until the end**
  - **Potential for a great deal of wasted work**
- **Closed, heavyweight process**

Agile Development Process

- **Release comprised of four 20-day development cycles**
  - **6-12 months to deploy capability**
- **Opportunities to make adjustments**
  - **First Look Site allows users to "play" with the developing system and provide timely feedback**
    - **User Assessments after sprint development cycles**
    - **Test Data has multiple values**
      - **Influences functionality**
      - **Used by JITC & DIA for testing assessments**
  - **Requirements validated with users every sprint**
    - **Requires constant user engagement**
    - **Minimize wasted work**

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Agile Development Process

Requirements from CCMD, Services, and Agencies

1.
2.
3.
4.
5.
6.

Requirements prioritized in product backlog by the Joint Staff

System Developers

1

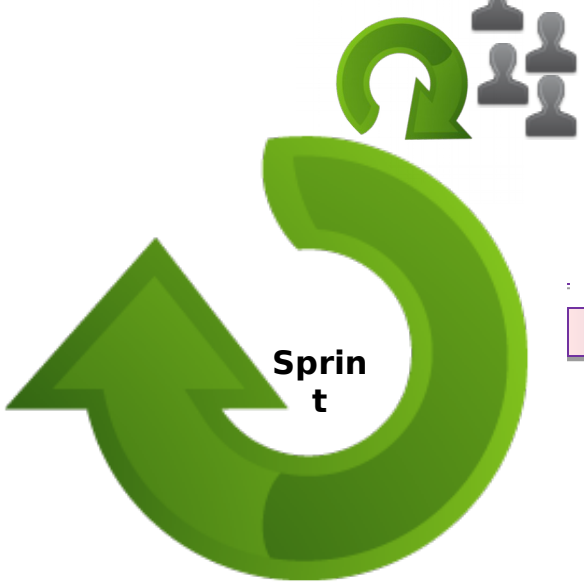
Sprint Planning

1a
1b
1c

Sprint Backlog

20-Day Development Cycle

Daily meetings with the Government Program Office and Development Team



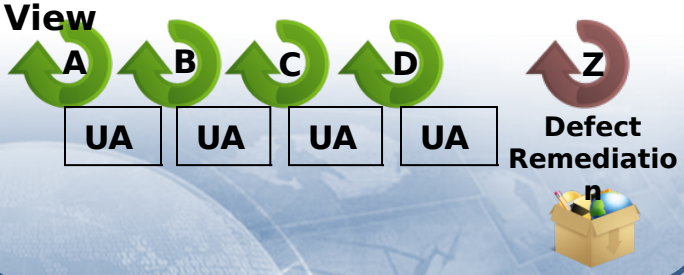
Duration/Deliverables Locked During Development

Potentially Deployable Product

User Assessment

Requirements from CCMD, Services, and Agencies

Macro View



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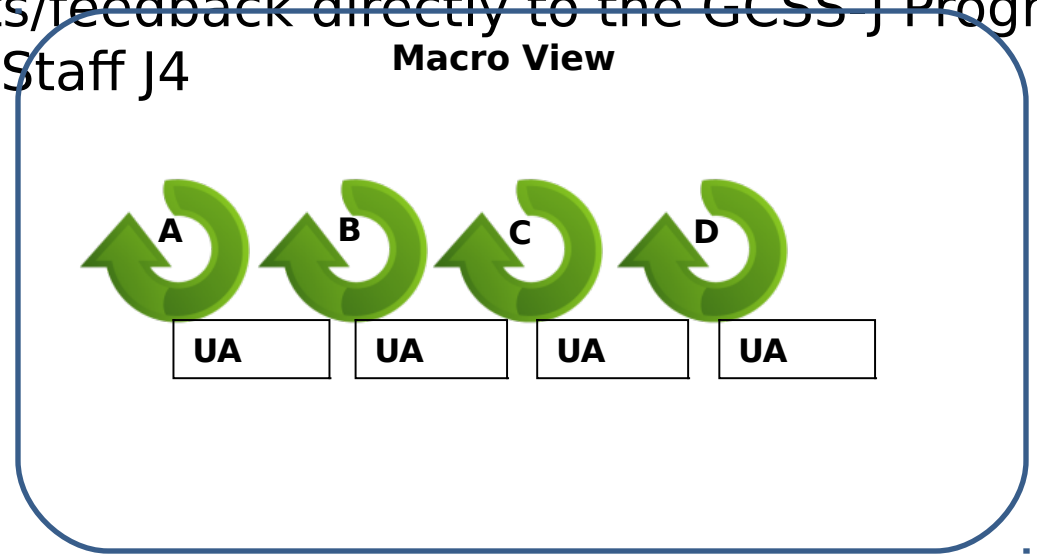
User Assessments

GCSS-J conducts User Assessments (UA) approximately every 30-45 days. These assessments enable users to preview new capabilities and enhancements under development, and provide an opportunity for users to submit comments/feedback directly to the GCSS-J Program Office and Joint Staff J4



To participate in GCSS-J User Assessments contact the GCSS-J Quality Assurance Team at david.j.whittington3.civ@mail.mil or kelly.d.lane8.civ@mail.mil or the Joint Staff at js.pentagon.j4.mbx.gcss-j2@mail.mil

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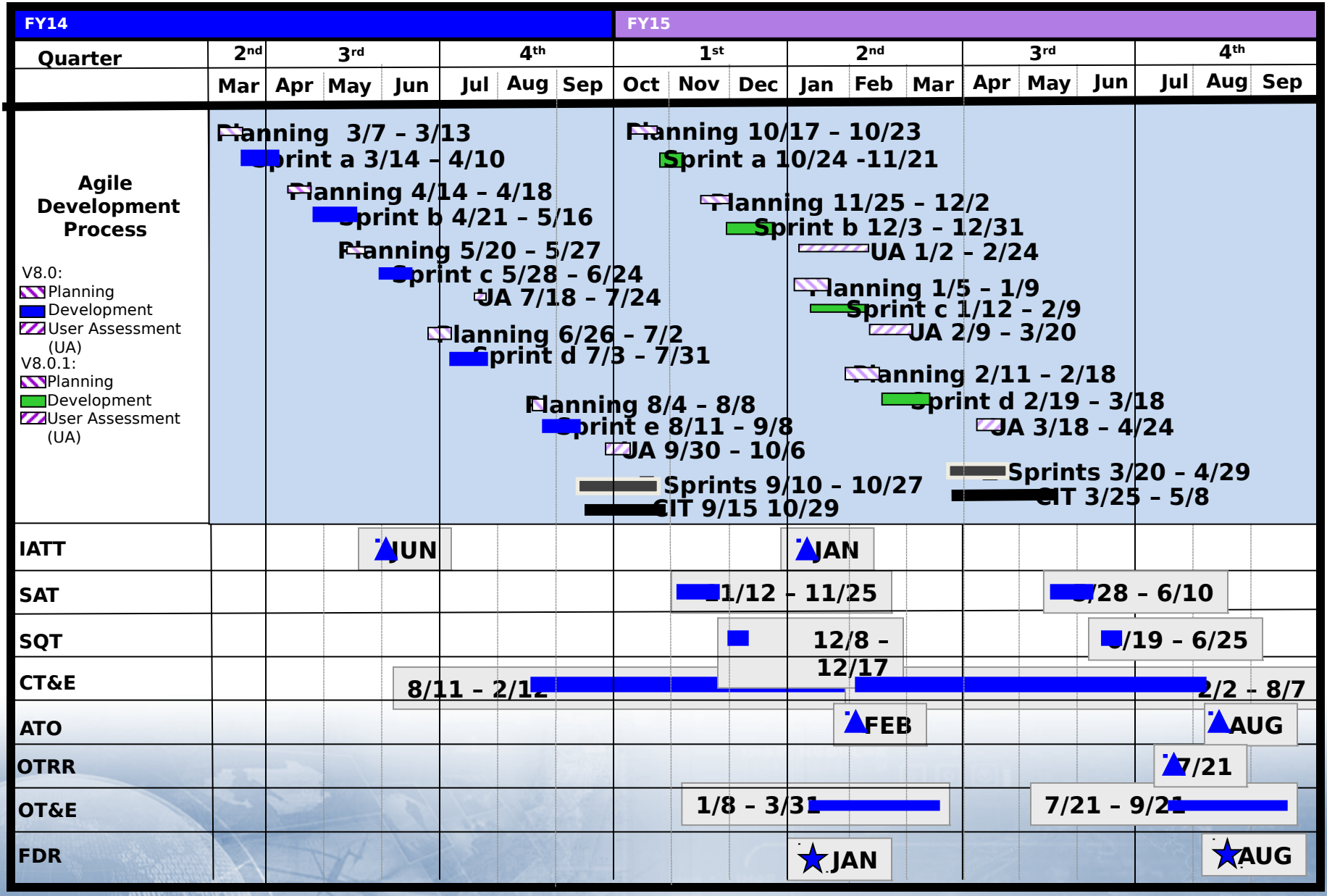
GCSS-J v8.0/v8.0.1 Schedule



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Summary

- Supports the Combatant Command and Joint Task Force Commanders
- Vision: Dynamic Logistics -> Nothing Constrained -> Everything Possible
- Enhanced decision support tools and situational awareness to the Warfighter
- Available on both the SIPRNet and NIPRNet
- Agile development enables new or enhanced capabilities fielded every 6 months
- Continue to remain flexible seeking user inputs & new ways to improve processes

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